l-e-i-g-h—Thank you. I'll hold the line."

Now there will be given what Stranleigh knew he said, and supposed that Mackeller heard, and later will be shown the mistake that arose.

"That you, Peter? How are you?"

"Oh, first rate. What can I do for you?"

"I suppose you're pretty busy just now?"

"Yes, and shall be for the next month to come."

"Well, then, now's a good time to desert duty and join me. You always prospered, Peter, when you linked your fortunes with mine."

"What do you want?"

"I have become interested in a mining property. I want you to go right away and examine it."

"Oh, hang it all, I've given up that sort of thing long ago. London is full of excellent mining engineers."

"True; but they are not Peter Mackellers," and then Stranleigh added under his breath, "Thank the Lord!" but that injudicious ejaculation did not go over the wires.

"I'm sorry it is impossible, Stranleigh."

"Nothing is impossible, Peter, when a man has made up his mind. I always did manage your business better than you could yourself, Peter, though you never had the decency to admit it. Now, I'll take charge of it while you're away. In these days of speedy communications, the journey won't take you long. This project is an undeveloped gold mine in Transylvania. It promises the richness of Midas, and I want to know the truth. You can then come in with me on the ground floor, if you think it worth while."

"I thought there weren't any undeveloped gold-mines in that region. It's been, if anything, over-prospected, and I'm nearly certain all lands worth having have been taken up long ago."

"Is that so? I, of course, know nothing of the district. Still, I'll take all the risk if you'll go there for me."

"I can't promise at the moment, Stranleigh, but by a curious coincidence, my wife spoke only this morning about going there. If you'll wait half an hour, I will get into communication with her, and should she prove to be of the same mind, I'll take it on."

"Thanks, Mackeller; that's first rate."

"How long shall you be in?"

"If you promise to call, I'll wait here till you come."

"I'll call and get particulars if I determine to go across; otherwise I will telephone you. Good-bye."

Stranleigh hung up the receiver.

"Now, what vagary," said the young man to himself, "has struck the beautiful Mrs. Mackeller, that she should wish to go into the wilds of Transylvania practically alongside Roumania? Ah, I see! Vienna is the attraction. She will take up residence there while Peter investigates the mining property."

(To be Concluded Next Sunday.)

FARMING WITH DYNAMITE

By Samuel Wesley Long

ONE looking for the latest word in agricultural development, should write in capital letters—DYNAMITE.

There is something about the term that is both fearful and fascinating, for a stick of dynamite is one of the most potential things in all the world. Within that putty-like substance lies the power to rip a gaping hole in the hull of a dreadnaught, or to make an Eden of an acre of stump land.

Dismiss the thought of dynamite as a destroyer and give attention to the consideration of its ability as a creator of new and big possibilities in the realm of agriculture.

"Farming with dynamite" is now a term understood and appreciated, not only by the scientific farmer, but also by the ordinary husbandman, whose knowledge is entirely practical and has come to him through a lifetime of sun-to-sun toil.

The high browed college faculty gave scientific farming to the tiller of the soil but "farming with dynamite" is the property of the less theoretical farmer, by right of discovery. The scientific demonstrator and experimenter has reduced "farming with dynamite" to more or less of a science but it was the common sense of the farmer himself which suggested the first use of the explosive and practically every new means of its employment.

The man who facetiously suggested "raising the mortgage on the farm with dynamite" did not himself appreciate the wisdom contained in idle words. Thousands of farmers are actually "raising" the mortgage and ceasing to pay taxes on unproductive land, not by dodging the tax collector but making the uncultivatable land tillable by using dynamite to remove the stumps and boulders, blast the hardpan and drain the swampy sections by digging ditches or breaking up the impervious stratum which prevents natural drainage from flowing off through the underlying sand or gravel.

Land made infertile by shale, conglomerate, or hard clay, is transformed into highly productive orchard soil by the dynamite blast. The barren trees in old orchards given a new lease on life by the loosening of the hard-packed earth which virtually strangles their roots, revive as by magic.

Fruit trees given the right sort of start in life by being planted in holes dug with dynamite, show a growth of sixteen feet in the same period of time that their neighbors, set in spade-dug holes, require for an eight foot development. A three-fold yield of fruit is the frequent result of following the dynamite method in fruit tree planting.

The digging of holes for a thousand fruit trees by the usual means is an undertaking that one would naturally consider as being something more than a day's work for two men. But by the dynamite method a farmer and one "hand" find it an easy task. The only labor involved is the punching of holes in the earth with an iron bar and the "priming" and firing of the cartridges. Not only do the explosions break up and loosen the earth but they annihilate the underground army of grubs and insects lying in wait to feed on the tender roots of the young trees.

Incidentally, it is a good thing for farmers with fields infested with moles and other earth-dwelling animals to know that dynamite affords the cheapest and most effective means of exterminating them.

Dynamiting a Huge Stump

Since the advent of dynamite in farming, the farmer familiar with the explosive no longer risks plow points on the rocks and boulders, nor walks many unnecessary rods plowing round the obstruction—he simply slits the paper of a dynamite cartridge and places the explosive in a mass on top of the rock, inserts a blasting cap and fuse, lights it and instantly he has a line lot of small sized stone for foundations or road building.

If it may so be expressed, dynamite has exploded the time-honored idea that the only part of the sixty-mile thick crust of the earth of value to the farmer, is a scant ten inches—the depth of the plow-cut. Experience proves that the subsoil when broken to a depth of four to six feet, releases a vast amount of natural plant food and affords an enormously increased storage for rain water, which becomes available during periods of drought. Another beneficial result, is the drainage of surplus water in time of a super-abundance of rainfall.

Subsoil "plowing" does not obviate the necessity of using the plow for top-soil cultivation—it simply extends the breaking up of the soil to a greater depth.

While subsoiling is the latest and probably the most valuable of the uses of dynamite, it is also one of the simplest of the dynamite farming operations. For the purpose a crowbar is driven about two feet into the earth at distances of from six to twenty feet apart; dynamite charges are dropped down the holes and the fuses lighted by men passing along the line with red-hot bars of iron or with torches.

The claim is made that the loss of millions of bales of cotton, caused by excessive rain and drought, can be prevented by subsoil "plowing."

Hardpan, the bane of many of Dixie's farms, is destroyed for good and all by dynamite used in almost precisely the same manner as for subsoiling.

When one deals with figures like five-hundred millions, it requires somewhat of a stretch of imagination to fully comprehend their enormity. Those figures represent, in round numbers, the acres of land actually under cultivation in the United States. Yet, statistics show that in three states alone, there are 91,863,949 acres, or nearly twenty per cent. of the total cultivated land of the whole country, whose cultivation is blocked by stumps. In many other states a similar condition exists. All this land can and likely will be brought under cultivation by the use of dynamite.

The prediction is made that dynamite will make a new New England. The "abandoned farms" with their boulder dotted fields, will, according to the views of students of dynamite's regenerative powers of re-christened "dynamited farms."

The removal of boulders with dynamite is extremely simple and requires about the least technical knowledge of the explosive's uses. For the purpose, three methods are followed—"mud-capping," "snake-holing," and "block-holing."

The mud-capping operation is the most generally used, though it requires more dynamite than block holing. For mud-capping the dynamite is removed from the paper cartridge and placed in a lump on the rock at the point where one would naturally hit the boulder if attempting to rupture it with a sledgehammer. A blasting cap with fuse attached is placed in the center of the mass which is then covered with six inches of moist clay.

Snake-holing consists of punching a slanting hole with a crowbar, under a flat side of the rock, inserting a cartridge primed with cap and fuse and filling the hole with sand or earth.

Block-holing requires the drilling of a hole ten or twenty inches deep into the rock. This method, while the slowest, is the most positive and effective and is almost invariably used where the boulder weighs ten or more tons. The location of the hole is determined by the size and grain of the rock.

The unprecedented interest that has been aroused in irrigation will soon be exceeded by the interest in "farming with dynamite," for the reason that the aggregate benefits to farming that the use of dynamite will effect, are many times greater than those to be secured by irrigation. This is due to the fact that there is more land that can be improved by dynamite than there is to be irrigated and because it is cheaper.

The United States government, the governments of several individual States, the great railroads, and many agricultural colleges, are using every means to develop and spread this new gospel of farming. Through these agencies and by experiments by farmers, the groundless fear of dynamite is rapidly disappearing, as the fact is being daily demonstrated that the brands of dynamite made for farm uses, are much safer to handle and use than is ordinary gunpowder.

Once the possibilities of dynamite are generally understood and the needless fear of the explosive dissipated the way will be opened to a doubling of the present cultivated area of this, the greatest agricultural country in the world.